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10/575,611	01/16/2007	Mirko Schindler	BM-189PCT	1769
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FRIEDRICH KUEFFNER 317 MADISON AVENUE, SUITE 910 NEW YORK, NY 10017			EXAMINER EUSTAQUIO, CAL J	
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/575,611

**Applicant(s)**

SCHINDLER ET AL.

**Examiner**

CAL EUSTAQUIO

**Art Unit**

2612

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 1/16/2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 January 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SI.08)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Interval Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date \_\_\_\_\_

DETAILED ACTION

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
  2. Ascertaining the differences between the prior art and the claims at issue.
  3. Resolving the level of ordinary skill in the pertinent art.
  4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
1. **Claim 1, 6, 8, 11-17, and 21-23** are rejected under 35 U.S.C. 103(a) as being obvious over Macarini, EP 0999324 (copy provided by Applicant with IDS dated 4/12/06) in view of Van den Boom et al, U.S. 6,075,294.
- (1) **As to claim 1**, Macarini discloses the claimed: External door handle, especially for motor vehicles,
- with a stationary bracket (10) attached to the door (11) (page 1, 4, connecting structure);
  - with a grip (20), supported pivotably on the bracket (10) (as above, 13, and [0021], pin 16, suggesting that grip 13 pivots about pin 16) ;
  - with a lock mounted in the door (ii), which can be switched between a locked and an

- unlocked position ([0010] lock mounted on the door);
- where an actuation (24) of the grip (20) to open the door (ii) is nonfunctional in the locked position but functional in the unlocked position ([0018], discloses change a door state from being locked to unlocked); and
- with at least one electronic sensor circuit for sensing presence (col. 1 and Figs. 1-2 and corresponding disclosure);

**Except for the claimed:**

- with at least one capacitive electronic sensor circuit (28, 38), which has an outer electrode active in the outside area of the external door handle;
- where the active surface (37) of this electrode senses the approach of or contact by an authorized person and therefore is called the sensor surface (37); and
- where the authorized person carries with him an active or passive identification means for access authorization and/or driving authorization for the vehicle; wherein
- at least two additional, inner electrodes of the capacitive electronic sensor circuit (28, 38) are provided in the interior area of the external door handle,
- between which an electrical coupling field (50.1) is built up at least in the rest position, i.e., while grip (20) remains unactuated;
- where the active surface of the one electrode builds up the electrical coupling field (50.1) and is therefore called the exciter electrode (35);
- whereas the active surface of the other inner electrode is electrically connected (34) to the outward-acting sensor surface (37) and is called the transfer surface (36) for the coupling field (50.1).

As to the above claimed limitations, Macarini discloses the use of *magnetic* detection systems to lock and unlock a vehicle door lock system. However, Macarini does not disclose the use of capacitive sensing circuits to perform vehicle door locking and locking. In the same art of vehicle door systems, Van den Boom discloses the following:

- with at least one capacitive electronic sensor circuit (28, 38), which has an outer

electrode active in the outside area of the external door handle (FIG. 3 and 4, at least three capacitance sensors 30-34 located within a portion of the door handle);

-- where the active surface (37) of this electrode senses the approach of or contact by an authorized person and therefore is called the sensor surface (37) (col. 3, lines 64-67 and col. 4, lines 1-7); and

-- where the authorized person carries with him an active or passive identification means for access authorization and/or driving authorization for the vehicle (col. 1, lines 15-23, data storage medium held by the operator, and col. 3, lines 3-24); characterized in that

-- at least two additional, inner electrodes of the capacitive electronic sensor circuit (28, 38) are provided in the interior area of the external door handle (FIG. 1, and col. 4, lines 33-45, capacitance sensor 30-34).

-- between which an electrical coupling field (50.1) is built up at least in the rest position, i.e., while grip (20) remains unactuated (see FIG. 4, electrical charge lines 32);

-- where the active surface of the one electrode builds up the electrical coupling field (50.1) and is therefore called the exciter electrode (35) (as disclosed above, Van den Boom discloses the use of capacitive sensors as well as illustrating electrical charge lines. Implicit in this illustration is that at least one capacitive sensor is the claimed "exciter electrode.");

-- whereas the active surface of the other inner electrode is electrically connected (34) to the outward-acting sensor surface (37) and is called the transfer surface (36) for the coupling field (50.1) (as disclosed above, Van den Boom discloses the use of capacitive sensors as well as illustrating electrical charge lines. Implicit in this illustration is that at least one capacitive sensor is the claimed "transfer surface").

It would have been obvious to one of ordinary skill in the art at the time of the claimed invention to implement the magnetic detection system in the vehicle door handle security system of Macarini with known capacitive detection system as taught by Van den Boom as an alternative to provide the intended detection function and achieve the same intended objectives, which would have resulted in a vehicle door system that utilizes a door

capacitance detection system in the manner claimed.

- (2) **As to claim 6**, the combination of Macarini and Van den Boom discloses the claimed:

External door handle according to **Claim 1**, wherein the external door handle has several separate, outward-acting sensor surfaces (67, 47) for sensing the presence of a hand and/or inward-acting transfer surfaces (56, 46) and/or exciter surfaces (59, 45) for building up the coupling field, and in that these separate sensor surfaces (67, 47), upon contact by or approach of the authorized person, trigger different functions in the lock or in other devices in the vehicle. See rejection of **claim 1**.

- (3) **As to claim 8**, the combination of Macarini and Van den Boom discloses the claimed:

External door handle according to **Claim 6**, wherein, upon the approach of or contact by the authorized person, at least one of the sensor surfaces triggers the movement of movable parts in the vehicle in the opening and/or in the closing direction. See rejection of **claim 1**.

- (4) **As to claim 11**, the combination of Macarini and Van den Boom discloses the claimed:

External door handle according to **Claim 1**, wherein one or more of the outward-acting sensor surfaces (37, 67) are seated on the grip (20). See rejection of **claim 1**.

- (5) **As to claim 12**, the combination of Macarini and Van den Boom discloses the claimed:

External door handle according to **Claim 1**, wherein one or more of the sensor surfaces (27, 47, 57) are seated on a cover part (25), which is mounted in the external door handle next to the grip (20). See rejection of **claim 1** and FIG. 3 of Van den Boom.

- (6) **As to claim 13**, the combination of Macarini and Van den Boom discloses the claimed:

External door handle according to **Claim 1**, wherein at least some of the electronic components of the capacitive sensor which serve to lock and/or to unlock the lock and/or to move the movable parts in the vehicle are integrated into the grip or into the interior of the grip of the external door handle. See rejection of **claim 1**.

- (7) **As to claim 14**, the combination of Macarini and Van den Boom discloses the claimed:

External door handle according to **Claim 1**, wherein at least some of the electronic components (28, 38) of the capacitive sensor (electronic sensor circuit 28, 38) which

serve to lock and/or to unlock the lock and/or to move the movable components in the vehicle, are mounted either directly or indirectly (30) on the bracket (11). See rejection of **claim 1**.

- (8) **As to claim 15**, the combination of Macarini and Van den Boom discloses the claimed: External door handle according to **Claim 14**, wherein the electronic sensor circuits (28,38) are located in a housing unit (30), which is seated on the bracket (11). As previously disclosed in **claim 1**, the combination of Macarini and Van den Boom discloses capacitance sensors located within the portion of the door handle. The door handle portion functions as the claimed "housing" while the claimed "bracket," would be the supporting structure for the handle shown on FIG. 3 of Van den Boom.
- (9) **As to claim 16**, the combination of Macarini and Van den Boom discloses the claimed: External door handle according to **Claim 15**, wherein the housing unit (30) is prefabricated and can be attached to the inward-facing (26) of the bracket (11). See rejection of **claim 15** with regards to FIG. 3 of Van den Boom in which the door handle 13 is placed in a similar configuration to the claimed housing unit.
- (10) **As to claim 17**, the combination of Macarini and Van den Boom discloses the claimed: External door handle according to **Claim 15**, wherein the housing unit (30) is prefabricated and is attached in the area of a barrel (17) mounted on the bracket, -- where the barrel (17) is mounted in the bracket (11) next to the grip (20). See rejection of **claim 16**. The claimed housing unit and barrel is close in scope and function to the door lock handle assembly 13 disclosed in FIG. 3 of Van den Boom.
- (11) **As to claim 21**, the combination of Macarini and Van den Boom discloses the claimed: External door handle according to **Claim 1**, wherein the grip consists of a pull-type grip (20), which is supported (15) at one end (21) on the bracket (11), whereas its other end (22) has an arm (23), which cooperates with the lock; and in that -- the housing finger (32) is located next to the arm (23). See rejection of **claim 17**.
- (12) **As to claim 22**, the combination of Macarini and Van den Boom discloses the claimed: External door handle according to **Claim 21**, wherein the transfer surface (36)

of the third electrode for the electrical coupling field (50.1) is located on the inner end of the arm (23) of the grip (20). See rejection of **claim 1**.

- (13) **As to claim 23**, the combination of Macarini and Van den Boom discloses except for the claimed: External door handle according to **Claim 21**, wherein the exciter surface (35) of the second electrode for the electrical coupling field (50.1) is located in the housing unit (30), which is seated on the rear surface (26) of the bracket (11). See rejection of **claim 15**. Although the housing unit disclosed in Van den Boom, FIG 3 and 4, differs slightly than the claimed invention, the sensing surfaces shown in the invention to detect the presence of a hand is functionally the same as the detection surfaces shown on the grip of the handle shown in FIG. 3 and 4 of Van den Boom.

2. **Claims 7, 9, and 18-20** are rejected under 35 U.S.C. 103(a) as being obvious over Macarini, EP 0999324 in view of Van den Boom et al, U.S. 6,075,294 and Sanders, U.S. 4,774,255.

- (1) **As to claim 7**, the combination of Macarini and Van den Boom discloses except for the claimed: External door handle according to **Claim 6**, wherein one of the sensor surfaces (67) serves to unlock the lock, whereas another (47) serves to lock the lock. As previously disclosed in **claim 1**, the combination of Macarini and Van den Boom discloses a capacitive sensing system that unlocks a vehicle door upon authorization received from a data storage module carried by the user. However, neither discloses one set of sensor surfaces serving to unlock a door while another sensor surface locks a door. In the same art of vehicle door security systems, Sanders, col. 13, lines 13-16, discloses a keypad/transmitter that changes the operational characteristics of a vehicle system to include changing a door function from a locking function to an unlocking function. It would have been obvious to one of ordinary skill in the art at the time of the claimed invention to include into the combination of Macarini and Van den Boom the vehicle configuration keypad disclosed in Sanders a vehicle door system that can change the function of a door locking system from a locking system to a door unlocking system. By changing the function of the door handle capacitance sensors, the door handle surfaces effectively become two different door sensor systems that meet the claimed different sets



of door handle sensors. Such a system, as disclosed in Sanders, is not new in the art and such a system would have the advantage of using one set of sensors to provide multiple uses.

- (2) **As to claim 9**, the combination of Macarini, Van den Boom, and Saunders discloses the claimed: External door handle according to **Claim 8**, wherein the sensor surfaces cause the movable parts to move in the opening direction upon contact by or approach of the authorized person and then in the closing direction upon the next approach or contact. As previously disclosed in **claim 7** above, the above combination discloses changing the vehicle door sensing system to unlock and open a door, which is the claimed “opening and closing directions.” It would have been obvious to one of ordinary skill in the art at the time of the claimed invention to include into the above combination the known concept of closing a door upon exiting the vehicle and opening the door upon reentering a vehicle. This is a commonly held known practice and one of ordinary skill in the art would have known/recognized this operational procedure and would have likely used this known procedure in the manner claimed.
- (3) **As to claim 18**, the combination of Macarini and Van den Boom discloses the claimed: where it has an outward-acting sensor surface (27) (see **claim 1**, regarding Van den Boom, FIG. 4, electrical charge lines 32),

Except for the claimed: External door handle according to **Claim 15**, wherein the housing unit (30) consists of a main housing (31) and a projecting housing finger (32); and in that -- the end (33) of the finger extends into the outer area (25) of the external door handle, *for triggering the locking of the lock*. As previously disclosed in **claim 1**, the combination of Macarini and Van den Boom discloses a capacitive sensing system that unlocks a vehicle door upon authorization received from a data storage module carried by the user. The Furthermore, Van den Boom However, neither discloses one set of sensor surfaces *for triggering the locking of the lock*. In the same art of vehicle door security systems, Sanders, col. 13, lines 13-16, discloses a keypad/transmitter that changes the operational characteristics of a vehicle system to include changing a door function from a locking function to an unlocking function. It would have been obvious to one of ordinary skill in the

art at the time of the claimed invention to include into the combination of Macarini and Van den Boom the vehicle configuration keypad disclosed in Sanders a vehicle door system that can change the function of a door locking system to include locking a door based on the sensing of a human hand extending itself proximate to the capacitance sensor. Such a system, as disclosed in Sanders, is not new in the art and one of ordinary skill would have incorporated such a known feature as claimed in the invention with a predictable amount of success.

(4) **As to claim 19**, Macarini discloses except for the claimed: External door handle according to **Claim 18**, wherein the electronic sensor circuit (28, 38) is integrated into the main housing (31) of the housing unit (30), -- whereas the housing finger (32) can be inserted through an opening (29) in the bracket (ii) and through a hole in the outer housing skin (30) of the door. Macarini, as in **claim 1**, discloses a door handle device that includes sensor circuitry that is used to lock and unlock a vehicle door. Macarini doesn't disclose the door handle as described above. In the same art of vehicle door systems, Van den Boom, FIG. 3 and col 3, lines 53-67 and col 4, lines 1-7, discloses using a vehicle door handle in similar configuration to the door handle claimed in the invention. Van den Boom, although not exactly discloses a mounting bracket as in the claimed invention, Van den Boom nevertheless suggest mounting the door handle to a vehicle door in which the mounting functions in the same manner as the claimed invention with the bracket. It would have been obvious to one of ordinary skill in the art at the time of the claimed invention to include the vehicle door handle disclosed in Van den Boom to the door handle system disclosed in Macarini to produce a vehicle door handle system as claimed in the invention. Van den Boom represents an alternative embodiment to the door handle disclosed in Macarini and one of ordinary skill in the art would have known/recognized such a known feature and would have likely produced this configuration as claimed in the invention with a likelihood of success.

(5) **As to claim 20**, the combination of Macarini and Van den Boom discloses the claimed: External door handle according to **Claim 18**, wherein the housing unit (30) can be installed on the inward-facing surface (26) of the bracket (11) mounted in the door and/or

removed afterwards from the interior (11) of the door. See rejection of **claim 19**, especially with regards to Van den Boom, FIG. 3.

3. **Claims 2-4 and 10** are rejected under 35 U.S.C. 103 (a) as being obvious over Macarini, EP 0999324 in view of Van den Boom et al, U.S. 6,075,294 and Nahata, U.S 2001/0052839.

- (1) **As to claim 2**, the combination of Macarini and Van den Boom discloses except for the claimed: External door handle according to **Claim 1**, wherein the exciter surface (35) of the second electrode is electrically connected (44) to the capacitive sensor electrode (28, 38). As previously disclosed in **claim 1**, the combination of Macarini and Van den Boom includes at least a first and second electrode. Furthermore, Van den Boom, FIG. 4, discloses shell 28 used to cover the above mentioned electrodes. However, neither disclose an exciter surface being electrically connected to a capacitor sensor electrode. In the same art of capacitive vehicle door entry systems, Nahata, FIG. 3, [0022], and a conductive surface for a capacitive sensor 20. The conductive surface employed by sensor 20 which augments the electric field generated by the sensor. It would have been obvious to one of ordinary skill in the art at the time of the claimed invention to include into the combination of Macarini and Van den Boom the conductive surface disclosed in Nahata. The use of conductive surfaces for capacitance-based vehicular door systems is not new in the art and one of ordinary skill in the art would have recognized this known feature and included it in the manner claimed with a reasonable amount of success.
- (2) **As to claim 3**, the combination of Macarini and Van den Boom discloses: External door handle according to **Claim 1** ...which is active in the outside area of the external door handle. See rejected **claim 1** regarding the recitation of electrically charged lines. These lines suggest that an operator's presence may affect these electrically charged lines. Except for the claimed: wherein the transfer surface (36) of the third electrode is electrically connected (34) to the sensor surface (37) of the first electrode. As previously disclosed in **claim 1**, the combination of Macarini and Van den Boom includes at least a first, second electrode, and third electrode. Furthermore, Van den Boom, FIG. 4, discloses shell 28 used to cover the above mentioned electrodes. However, neither discloses an exciter surface being electrically connected to a capacitor sensor electrode.

In the same art of capacitive vehicle door entry systems, Nahata, FIG. 3, [0022], and a conductive surface for a capacitive sensor 20. The conductive surface employed by sensor 20 which augments the electric field generated by the sensor. It would have been obvious to one of ordinary skill in the art at the time of the claimed invention to include into the combination of Macarini and Van den Boom the conductive surface disclosed in Nahata. The use of conductive surfaces for capacitance-based vehicular door systems is not new in the art and one of ordinary skill in the art would have recognized this known feature and included it in the manner claimed with a reasonable amount of success.

- (3) **As to claim 4**, the combination of Macarini and Van den Boom discloses except for the claimed: External door handle according to **Claim 1**, wherein a layer (52) of electrically conductive paint is applied to the exterior surfaces (53) and/or to the interior surfaces of the external door handle, at least in certain defined areas, and in that - this paint layer (52) produces the first electrode with its sensor surface (57), the second electrode with the transfer surface, and/or the third electrode with the exciter surface. As previously disclosed in **claim 1**, the combination of Macarini and Van den Boom discloses the use of at least three different electrodes. As disclosed in **claim 3**, the above combination also includes the use of conductive surfaces to aid the capacitive reflective sensors to generate an electric field. However, neither the combination of Macarini and Van den Boom discloses the use of electrically conductive paint. In the same art of vehicle door systems, Nahata, [0029-30], discloses the use of conductive paint used to form part of a capacitive sensing system. It would have been obvious to one of ordinary skill in the art at the time of the claimed invention to include into the combination of Macarini and Van den Boom the use of conductive paint as shown in Nahata to produce the above claimed limitations. Using conductive paint, as demonstrated in Nahata, is old in the art and one of ordinary skill in the art would have recognized this known feature and included it in the manner claimed with a reasonable amount of success.
- (4) **As to claim 10**, the combination of Macarini and Van den Boom discloses except for the claimed: External door handle according to **Claim 8**, wherein the movable parts are one or more windows, a sliding roof, a rear hatch, and/or one or more doors of the vehicle. As

in **claim 1**, the above combination discloses the use of capacitance detection systems to unlock a door. However, none of the above discloses opening a door. In the same art of vehicular door systems, Nahata, [0032], discloses a similar capacitance detection sensor that actuates a vehicle lock as well as opening a vehicle door. It would have been obvious to one of ordinary skill in the art at the time of the claimed invention to include into the combination of Macarini and Van den Boom the known feature of opening a door, as cited in the claimed limitations, as disclosed in Nahata. The use of capacitance-based vehicular door systems to open a vehicle door is not new in the art and one of ordinary skill in the art would have recognized this known feature and included it in the manner claimed with a reasonable amount of success.

4. **Claim 5** is rejected under 35 U.S.C. 103(a) as being obvious over Macarini, EP 0999324 in view of Van den Boom et al, U.S. 6,075,294 and Nahata, U.S. 2001/0052839 and Magnussen et al, U.S. 6,529,122.

- (1) **As to claim 5**, the combination of Macarini, Van den Boom, Nahata, and Macarini discloses except for the claimed: External door handle according **Claim 1**, wherein an electrically conductive layer of elastic material is applied to the exterior surfaces and/or to the interior surfaces of the external door handle, at least in certain defined areas, and in that -- this layer produces the first electrode with the sensor surface (57), the second electrode with the transfer surface, and/or the third electrode with the exciter surface. However, the above combination, while disclosing the use of electrically conductive paint, does not disclose the use of electrically conductive elastic material in the door handle. In the same art of electronic conductive material usage, Magnussen, col. 3, lines 29-45, discloses the use of an elastomer that is elastic and conductive. The disclosed device is used in a tactile/touch environment. Furthermore, col 19, lines 28-60, discloses the use of this material in touch sensors and automotive applications. It would have been obvious to one of ordinary skill in the art at the time of the claimed invention to include into the combination of Macarini, Van den Boom, Nahata, and Macarini the elastic conductive material disclosed in Magnussen to produce a door handle security device that includes the use of elastic conductive material. Magnussen discloses a known use of a

conductive elastomer in the electronic and vehicular technology arena and therefore, one of ordinary skill in the art would have found it obvious to utilize such material because the use of a plastic device over a metallic equivalent would produce weight savings and reduce the device's susceptibility to rust and corrosion.

***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Willats et al., U.S. 2003/0222758, [0081-83] discloses a vehicle door security system in which a user, when detected at a door, is allowed access after authorization.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Benjamin C. Lee whose telephone number is (571) 272-2963. The examiner can normally be reached on Mon -Thu 9:00Am-5:30Pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel Wu can be reached on (571) 272-2964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/C. E./

Examiner, Art Unit 2612

/BENJAMIN C. LEE/

Supervisory Patent Examiner, Art Unit 2612